

REMARKS

A. Request for Reconsideration

Applicants have carefully considered the matters raised by the Examiner in the outstanding Office Action but remain of the opinion that patentable subject matter is present. Applicants respectfully request reconsideration of the Examiner's position based on the amendments and following remarks.

B. Request for one month extension of time for the response

One month extension of time for the response is hereby requested and a proper fee has been paid with this online filing of the response.

C. Claim Status and Amendments

Claims 1-3 are presented for further prosecution.

Claim 1-3 have been amended to remove the 35 USC 112 rejections and other formality issues. No new matter has been added.

D. The Office Action

The Examiner had made several objections to the drawings and specification of the present application, as well as 35 USC 112 rejections on the claims.

The applicants appreciate the detailed review by the Examiner and the suggestions made by the examiner. Amendments have been made to the claims based on these suggestions. Each point raised by the examiner will be addressed, below.

1. The Drawings

The Examiner had invited a showing of "the multistage pump having an electric motor, with each stage having an impeller and a diffuser" in the drawings.

A new drawing is provided with this response as Figure 8 and a paragraph is added for its description, which illustrates a portion of a multistage pump. The drawing and its description are for a general description of the body parts of a multistage pump. It is submitted that the drawing is provided for the purpose of proper understanding of the invention. No new matter is added.

In addition, applicants have amended the claim 1 (and added in claims 2-3) to put them into Jepson format with the conventional elements "a multistage pump having an electric motor, with each stage having an impeller and a diffuser" as preamble part and the improvement or the novel features of the body/surface design with specific parameters after the transitional phase. The applicants respectfully submitted that a showing of the conventional part is not necessary, given the drawings provided have clearly shows the featured surface design.

2. The Claims

The claims has been objected for several formality issues and rejected under 35 USC 112.

The applicants have amended the claims to correct the formality deficiencies by following the Examiner's suggestions.

For the indefinite rejections, the applicants has amended the claims 1-3 into 3 independent claims, each relates to a multi-stage pump with surface design with specific set of parameters.

The applicants respectfully submitted that the inner surface design concerns 3 segments, which is the vaneless zone, the vaned zone and the β zone, which directs to the van, as discussed in the last two paragraphs of page 6. Therefore, 3 sets of parameters have to be defined. In particular, parameters for vaneless zone including a), b) or alternatively e) and f) (in original claim 1); parameters for vaned zone including c) and d); parameters for β zone including g) and h). Hence, the 3 set parameters are not 3 deferent embodiments, instead, they are a complete set of parameters of for the inner surface design of one complete multi-stage pump, as illustrated in the new figure 8.

Claims 2 and 3 are amended into independent claims relating to the impeller with two different flow rates. The support can be seen in the table of page 10.

Therefore, the applicants respectfully submitted the amended claims are definite and free of formality deficiencies.

3. The Specification and its amendments

The applicants have followed the Examiner's indication

to modify the specification at page 9.

Corresponding the amended claim 1, the specification has also been amended by incorporate the changes to the claim 1, i.e., to make the limitation of e) and f) as an alternative settings for vaneless zone. The applicants believe the specification as amended is now accurate and definite.

Applicants also added a general description of the surface of the pump and several definitions to clarify some ambiguities.

All amendments and added contents have been discussed in the specification. The added contents serve as general explanations of the designed feature. No new matter is added.

E. Conclusion

In view of the foregoing, it is respectfully submitted that the application is in a proper condition for examination on its merit and such action is respectfully requested. Should any fees be necessary in order to

maintain this Application in pending condition, appropriate requests are hereby made and authorization is given to debit Account #02-2275.

Respectfully submitted,

LUCAS AND MERCANTI, LLP

By: Donald C Lucas
Donald C. Lucas
(Attorney for Applicant)
475 Park Avenue South
New York, New York 10016
Tel. # (212) 661-8000

DCL/YDC